

# Expansion of Resources Eligible for Fulfilling VA RPS Goals

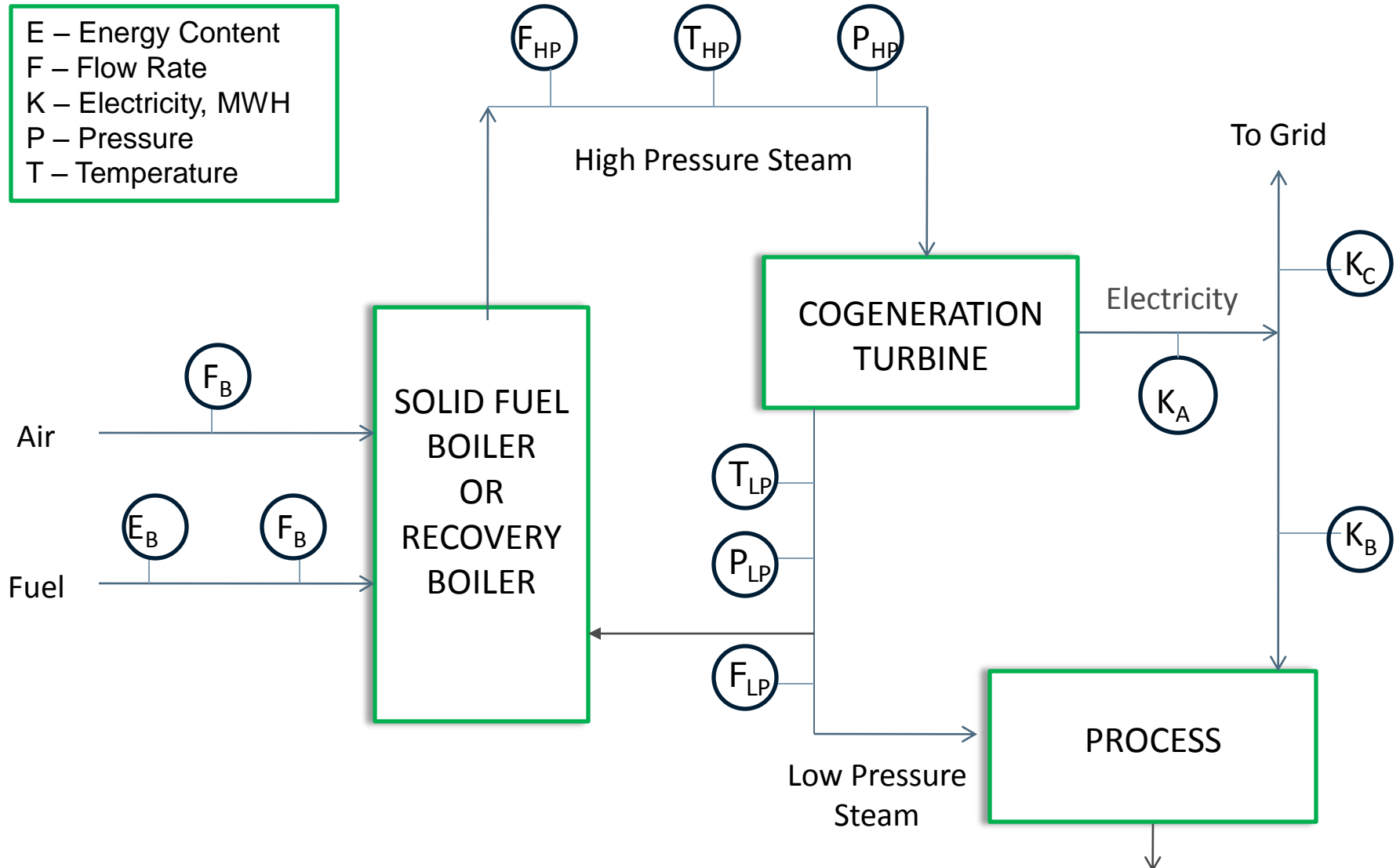
JCOTS Energy  
Subcommittee

# Legislation to Enhance Current RPS Law

**Combined heat and power facilities that utilize renewable fuels should be encouraged because of the efficiencies of this technology as compared to stand alone power generation**

- allow the renewable thermal energy output of such facilities which is utilized in industrial processes to be eligible for fulfilling VA RPS goals similar to the electrical output of such facilities
- facilities would have to be located in the Commonwealth and either newly constructed or renovated and improved after Jan 1, 2012
- renovated and improved means that a facility has upgraded its components to enhance its operating efficiency or to reduce its emission per unit of output such that it meets applicable Maximum Available Control Technology requirements.
- increases flexibility of RPS program by providing more options while also enhancing economic development in the Commonwealth
- renewable resources definition should include landfill gas

# Typical Cogeneration System in Forest Products Industry with Measurement Points



# Calculating Thermal Energy (Steam)

## For Steam from Renewable Fueled Cogeneration Turbine

- Multiply the steam flow ( $F_{LP}$ ) times the energy content of the steam (dependent on the steam pressure ( $P_{LP}$ ) and the steam temperature ( $T_{LP}$ ))
- Expressed as BTUs/hr of steam generated at standard conditions
- Convert to megawatt-hours using the conversion factor, 3.413 million BTUs per megawatt-hour.
- One megawatt-hour of renewable thermal energy equivalent equals one renewable energy certificate that can be used to fulfill VA RPS goals